

Date: Tuesday, 3/20/2007 1:51:45 PM
 User: Kim Johnston

Process Sheet

Customer	CU-DAR001 Dart Helicopters Services		Drawing Name	AFT CROSSTUBE	
Job Number	31368		Part Number	D2890	
Estimate Number	10377		Drawing Number	D2890 REV B	
P.O. Number	N/A		Project Number	N/A	
This Issue	3/20/2007		Drawing Revision	B	
Prsht Rev.	NC		Material	N/A	
First Issue	N/A		Due Date	4/10/2007	
Previous Run	29481		Qty:	1	Um: Each
Written By					
Checked & Approved By					
Comment	Est. D 05.03.21 Removed Bending procedures <input checked="" type="checkbox"/> NLM				

Additional Product

Job Number:



31368
W10 31374

Seq. #: Machine Or Operation:

1.0 D6008180



Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)

Pick:

Qty	Part #	Description
1	D6008-180	Crosstube extrusion

Batch

B25667

42
R280

2.0 BENDING

BENDING MACHINE



Comment: BENDING MACHINE

1-Bend D2890 as per Dwg D2890 and Folio FT002

EL 7-5-11

3.0 QC6

DIMENSIONAL CHECK



Comment: DIMENSIONAL CHECK

30705-220

4.0 LANDING GEAR 1

LANDING GEAR RESOURCE 1



Comment: LANDING GEAR RESOURCE 1

NIA J

1-Deburr and Polish

5.0 HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

NIA J

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: ✓ Date: 0705/23
 QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
0705/20	2	Scrap. Tube overbent 105° on one side. Program was not modified, tube just came in on it's own.	<u>J</u>	Replace on this up. destroy scrap tube.	<u>16</u>	<u>0705/22</u>	<u>J</u>	<u>0705/11</u>

NOTE: Date & initial all entries

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: AFT CROSSTUBE

Job Number: 31368

Part Number: D2890

Job Number:



Seq. #: Machine Or Operation:

Description:

6.0 QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION

*NIA J*

Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

7.0 PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock
Location: W/O 31374 (-103)

8.0 QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

*3/21/05/23**1*

Job Completion

*1 3/21/05/23*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

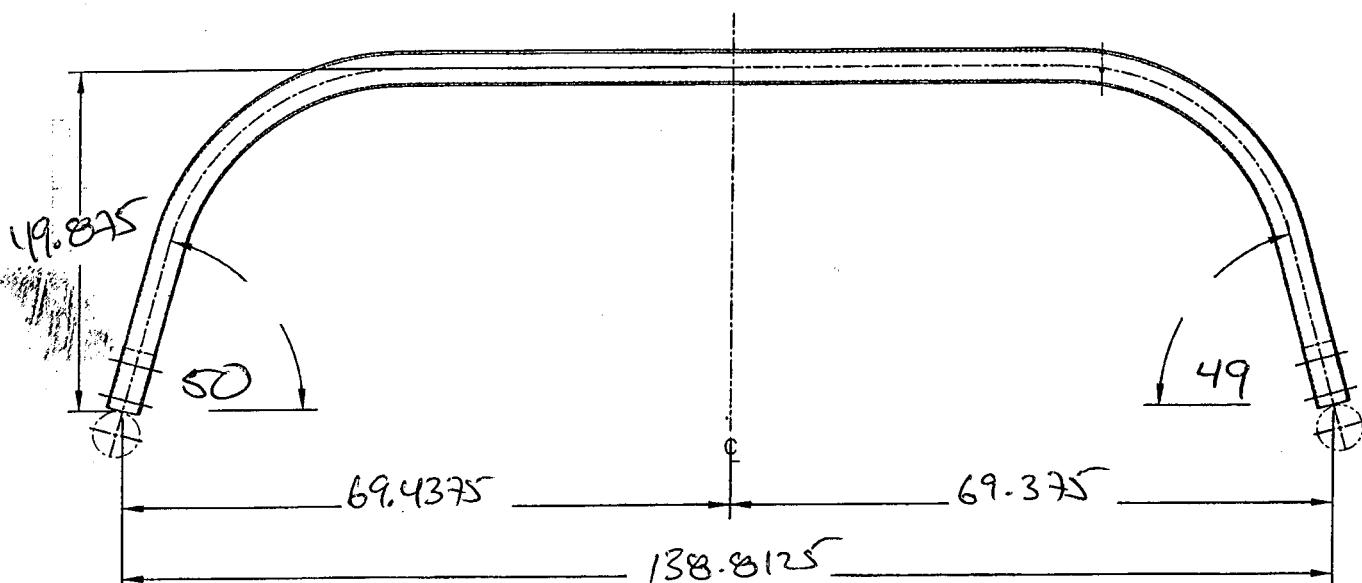
Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD	Work Order:	31368
Description: Crosstube Aft	Part Number:	D2890
Inspection Dwg: D2890	Rev: B	Page 1 of 1

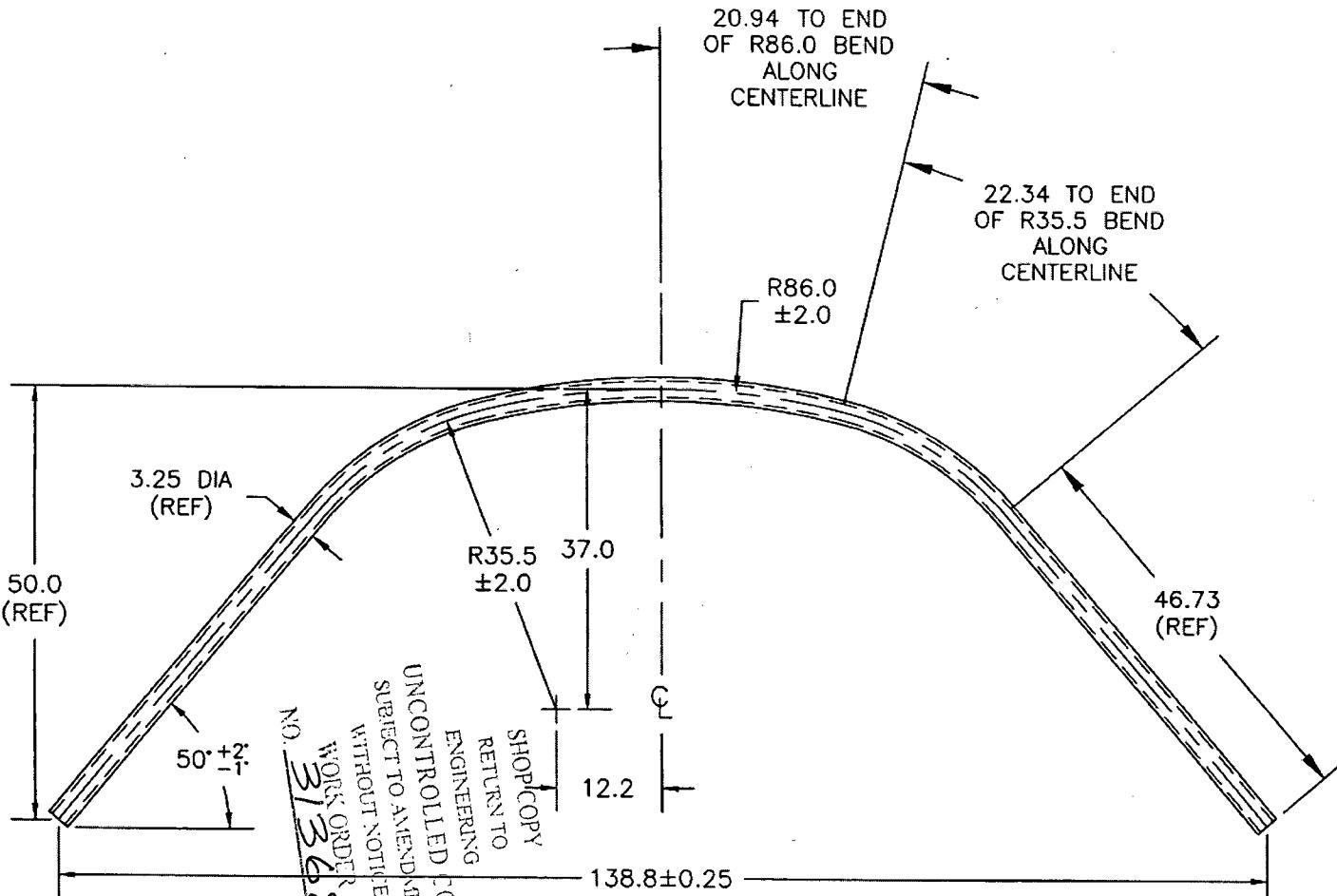
Required Dimension	Min	Max
Height	49.875	50.125
1/2 Span	69.275	69.525
Angle	49	52
Total Span	138.55	139.05



Comments
TUBE is used for D2890-506-103 B31374

QC15 Inspection	<i>✓</i>
Date	0705.22

Rev	Date	Change	Revised by	Approved
A	07.02.06	New Issue	KJ/JM <i>✓</i>	<i>✓</i>



NOTES

- 1) MATERIAL: MANUFACTURE FROM D6008-180 ($\varnothing 3.25$ OD x 0.438 WALL)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) PART IS SYMMETRIC ABOUT CENTERLINE
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) BEND PROGRESSIVELY WITH MINIMUM OF 3 PASSES
- 6) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.

RELEASED
02.10.28

DART

DART
AEROSPACE
LTD

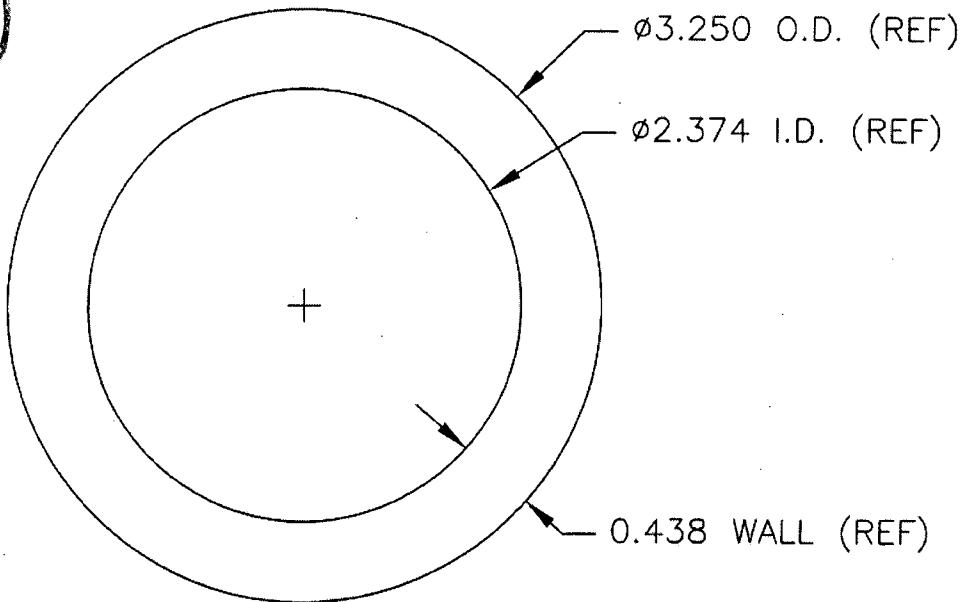
DESIGN	DRAWN BY	DART AEROSPACE LTD	
		HAWKESBURY, ONTARIO, CANADA	
CHECKED	APPROVED	DRAWING NO.	REV. B
		D2890	SHEET 1 OF 1
DATE			
A	99.05.21	NEW ISSUE	
B	02.10.18	ADD TANGENT LENGTHS; CHANGE NOTES	1:20



DESIGN	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA
CHECKED	APPROVED	DRAWING NO. D6008
DATE		TITLE CROSSTUBE MATERIAL
00.11.17		SCALE 1:1
A	00.11.17	NEW ISSUE

SPECIFICATION CONTROL DRAWING

RELEASED
00.11.24



NOTES

1) D6008-XXX CROSSTUBE
LENGTH

WHERE XXX IS LENGTH IN INCHES
EG. 180" LONG TUBE: D6008-180

2) MATERIAL: 3.250 OD x 0.438 WALL 7075-T6/T6511 (WW-T-700/7 OR QQ-A-225/9 OR QQ-A-200/11) SEAMLESS ALUMINUM TUBE.
MINIMUM ULTIMATE TENSILE STRENGTH = 77 ksi.
MINIMUM YIELD TENSILE STRENGTH = 66 ksi.

3) TOLERANCES ARE PER ASTM B210 AS FOLLOWS:
O.D.: ± 0.008 MEAN (± 0.016 INCLUDING OVALITY)
WALL: ± 0.020 MEAN (± 0.044 INCLUDING ECCENTRICITY)
LENGTH: XXX $+0.125/-0.000$
STRAIGHTNESS: 0.010" DEVIATION / 12" LENGTH

4) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.

5) CHEMICAL CONVERSION COAT PER DART QSI 005 4.1

SHOP COPY
RETURNED
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 31368

Copyright © 2000 by DART AEROSPACE LTD

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

